

Program Endorsement Brief: 2105.40/Forensics, Evidence, and Investigation Forensic Crime Scene Investigation - AS Degree

Los Angeles/Orange County Center of Excellence, March 2020

Summary Analysis

The Los Angeles/Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to the middle-skill occupation: forensic science technicians (19-4092). Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree. Although forensic science technicians typically require a bachelor's degree, it is considered a middle-skill occupation because approximately one-third of workers in the field have completed some college or an associate degree. This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations.

Based on the available data, there appears to be a supply gap for these forensic science technicians in the region. **Therefore, the COE endorses this proposed program.** Reasons include:

Demand:

- Over the next five years, there is projected to be 132 jobs available annually in the
 region due to new job growth and replacements, which is more than the 50 awards
 conferred annually by educational institutions in the region.
- Over the past 12 months, there were **49 online job postings related to forensic science technicians**. The highest number of job postings were for forensic specialist, examiner, and forensic technician.
- The national-level educational attainment data indicates 32.9% of workers in the field have completed some college or an associate degree.
- Typical **entry-level hourly wages** for forensic science technicians throughout the region are \$38.48, **which are higher than the California Family Needs Calculator** hourly wage for one adult in the region (\$15.04 in Los Angeles County and \$17.36 in Orange County)².

¹ The COE classifies middle-skill jobs as the following:

All occupations that require an educational requirement of some college, associate degree or apprenticeship;

All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or

[•] All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

² Living wage data was pulled from California Family Needs Calculator on 3/18/20. For more information, visit the California Family Needs Calculator website: https://insightcced.org/2018-family-needs-calculator/.

Supply:

- Three community colleges in the region currently offer forensics, evidence, and investigations programs, conferring an average of 48 awards annually between 2016 and 2019.
- Between 2013 and 2016, there were an average of two awards conferred annually in related training programs by non-community college institutions throughout the region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for forensic science technicians. In Los Angeles/Orange County, the number of jobs for forensic science technicians is projected to increase by 8% through 2023. There will be nearly 140 job openings per year through 2023 due to job growth and replacements.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2018 Jobs	2023 Jobs	2018-2023 Change	2018-2023 % Change	Annual Openings
Los Angeles	780	841	61	8%	105
Orange	202	218	16	8%	27
Total	982	1,060	78	8%	132

Wages — Typical entry-level hourly wages for forensic science technicians throughout the region are \$38.48.4 Entry-level wages for these workers are higher than the California Family Needs Calculator hourly wage for one adult in the region (\$15.04 in Los Angeles County and \$17.36 in Orange County)⁵. Experienced workers can expect to earn approximately \$63.35, which is much higher than the California Family Needs Calculator wage estimates for both counties. Wage information, by county, is included in Appendix A.

Job Postings — There were 49 online job postings related to forensics science technology listed in the past 12 months. The highest number of job postings were for forensic specialist, examiner, and forensic technician. The top skills were knowledge of DNA, forensic science, chemistry, laboratory equipment, and photography. The top three employers, by number of job postings, in the region were: County of Orange, Santa Ana Police Department, and County of Los Angeles. Of the 49 online job postings, 69% list a minimum education requirement.

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

⁴ Entry-level wage is defined as the twenty-fifth percentile hourly wage. Wages for experienced workers are defined as the seventy-fifth percentile hourly wage.

⁵ Living wage data was pulled from California Family Needs Calculator on 3/18/20. For more information, visit the California Family Needs Calculator website: https://insightcced.org/2018-family-needs-calculator/.

Educational Attainment — The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for forensic science technicians. The national-level educational attainment data indicates 32.9% of workers in the field have completed some college or an associate degree. Of the 69% of job postings listing a minimum education requirement in Los Angeles/Orange County, 44% (15) requested a high school diploma, 29% (10) requested an associate degree, and 26% (9) requested a bachelor's degree.

Supply

Community College Supply — Exhibit 2 shows the annual and three-year average number of awards conferred by community colleges in the related TOP code: Forensics, Evidence, and Investigations (2105.40). The college with the most completions in the region is East LA. During 2019, there were two other related program recommendation requests from regional community colleges.

Exhibit 2: Regional community college awards (certificates and degrees), 2016-2019

TOP Code	Program	College	2016- 2017 Awards	2017- 2018 Awards	2018- 2019 Awards	3-Year Award Average
		East LA	28	34	35	32
2105.40	Forensic,	El Camino	2	6	6	5
2103.40	2105.40 Evidence, and Investigations	Long Beach	11	8	15	11
gaau	LA Subtotal	41	48	56	48	
Supply Total/Average			41	48	56	48

Non-Community College Supply — It is important to consider the supply from non-community college institutions in the region that provide training programs for forensic/crime scene investigation occupations. Exhibit 3 shows the annual and three-year average number of awards conferred by this institution in the related Classification of Instructional Programs (CIP) Codes: Forensic Science and Technology (43.0106), and Law Enforcement Investigation and Interviewing (43.0114). Due to different data collection periods, the most recent three-year period of available data is from 2013 to 2016. Between 2013 and 2016, non-community college institutions in the region conferred an average of two awards annually in related training programs.

Exhibit 3: Regional Non-Community College awards, 2013-2016

CIP Code	Program	College	2013- 2014 Awards	2014- 2015 Awards	2015- 2016 Awards	3-Year Award Average
43.0106	Forensic Science and Technology	Allied American University	1	1	-	1
43.0114	Law Enforcement Investigation and Interviewing	Allied American University	1	1	-	1
	Sup	2	2	-	2	

Appendix A: Occupational demand and wage data by county

Exhibit 4. Los Angeles County

Occupation (SOC)	2018 Jobs	2023 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry- Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Forensic Science Technicians (19-4092)	780	841	61	8%	105	\$38.93	\$50.1 <i>7</i>	\$64.14
Total	780	841	61	8%	105			

Exhibit 5. Orange County

Occupation (SOC)	2018 Jobs	2023 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry- Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Forensic Science Technicians (19-4092)	202	218	16	8%	27	\$36.90	\$47.56	\$60.79
Total	202	218	16	8%	27			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2018 Jobs	2023 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry- Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Forensic Science Technicians (19-4092)	982	1,060	78	8%	132	\$38.48	\$49.65	\$63.35
Total	982	1,060	78	8%	132			

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- Employment Development Department, Unemployment Insurance Dataset
- Living Insight Center for Community Economic Development
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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